







BLM National Land Use Planning Conference

Regime Condition Class and LANDFIRE

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Talking Points

- 1. FRCC background
- FRCC as decision support and tie with Land Health Standards
- 3. LANDFIRE types of data and uses



FRCC background: policy drivers leading to FRCC

- General need to correlate "unhealthy" wildlands to expensive/damaging fires
- \$1B Suppression Tab 2000
- Cohesive Fuels Strategy 2000
- National Fire Plan 2001



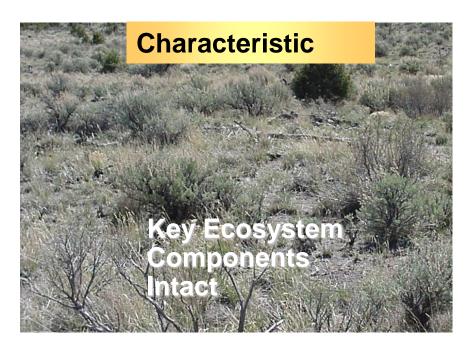
FRCC involves 2 key pieces of information

- 1. Condition Class (a departure class)
- 2. Historic Fire Regime (I V)



Similarity to natural (historical) vegetation

& disturbance regime FRCC 1 FRCC 2 FRCC 3





FRCC = an index of departure



200 +

Fire Regime Groups

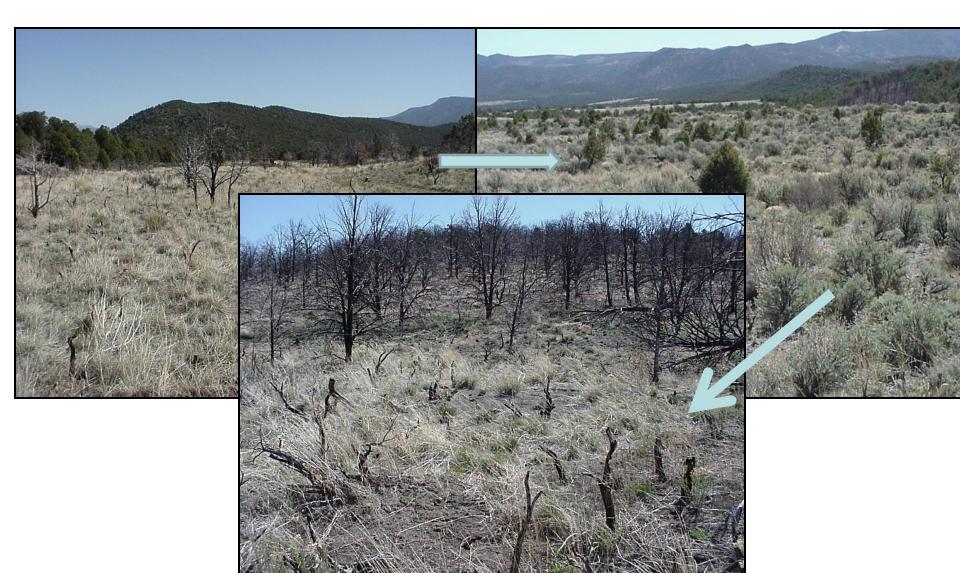
			_			
Fire Regime	Frequency (years)	Severity				
I	0 – 35	Low & mixed (0-75%)				
II	0 – 35	Replacement (>75%)	1			
III	36 - 200	Low & mixed	3			
IV	36 - 200	Replacement				

All (0-100%)





Right kind of fire creating desired communities





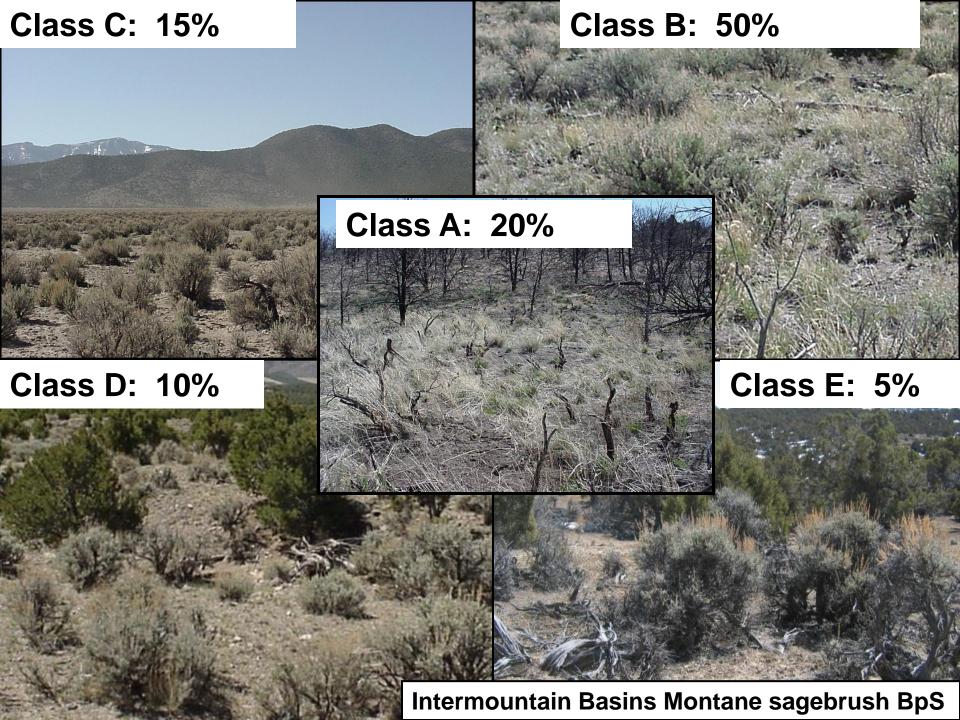
What is the reference or baseline in FRCC?

- Biophysical setting (BpS) = historic vegetation maintained by natural processes. Describes "reference" conditions.
- Reference = the natural disturbance regimes and vegetation patterns we compare current conditions to.



Please get out your BpS document

- Key Points:
- BpS models were developed through expert modeling workshops
- 2. Models provide a nationally complete library of fire regimes and plant ecology
- 3. Very similar to Ecological Site concept used by resources
- 4. This is a LANDFIRE product



FRCC Resources Available

- FRCC website (google "frcc.gov") with all forms, methods, etc.
- On-line training
- Software, GIS mapping tool
- LANDFIRE website for BpS Models (www.landfire.gov)





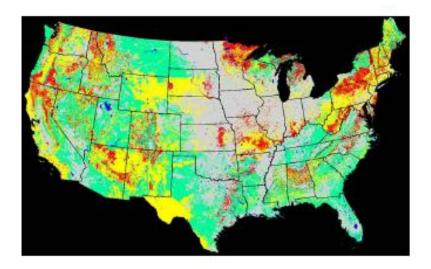








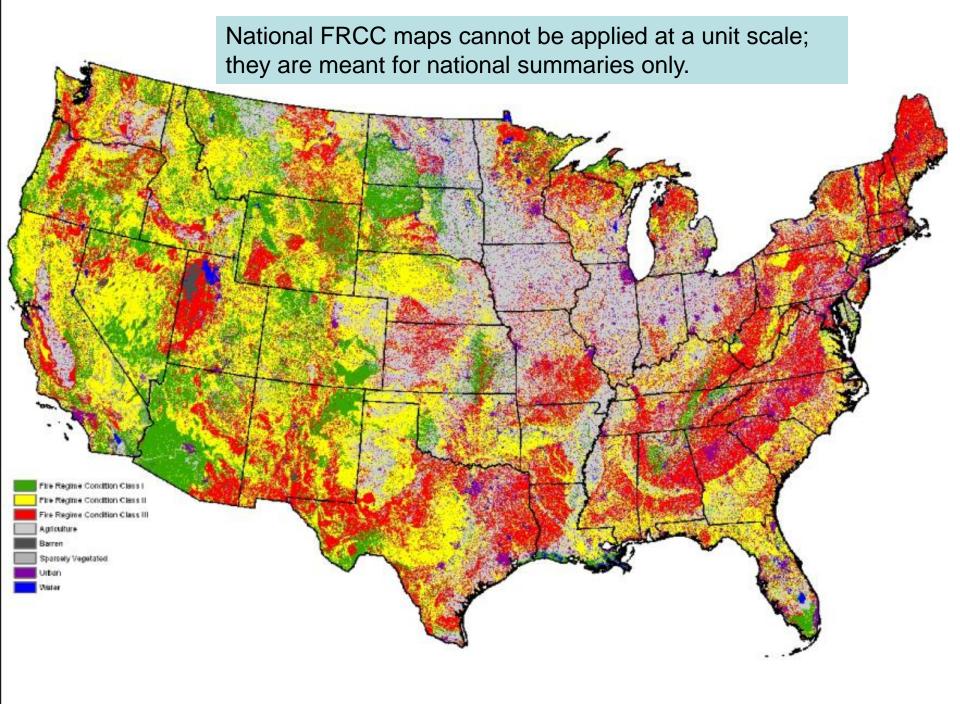


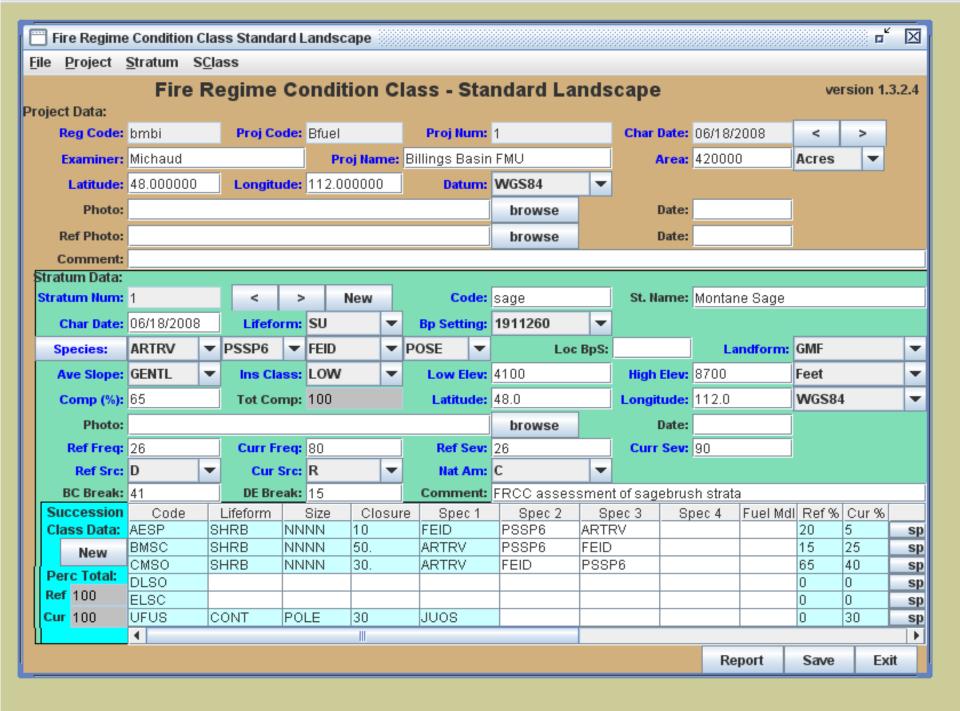


Interagency Fire Regime Condition Class (FRCC) Guidebook

Version 1.3.0 January 2008

FRCC Guidebook





Fire Regime Condition Class Standard Landscape Report - StratumData

Registration Code: BYRS Project Code: FHole3 Project Number: 15@har Date: 04/14/2008 Strata Num: 2

Strata Code: PJ Strata Name: Col Plateau P Date: 04/14/2008 Lifeform: WD BpS: 2210160 (1) Strata Comp: 40

Landform: GMF Slope: GENTL Insol: LOW Species: JUOS JUSC2 Local BpS:

Low Elev: 5000 High Elev: 11000 Feet Lat: 48.4 Lon: 166.8 Datum: WGS84

Ref Freq: 134 Curr Freq: 270 Ref Sev: 28 Cur Sev: 70

Ref Comp Src: D Cur Comp Src: R Nat Amer Burn: C B/C Class Break: 26 D/E Class Break: 35

Vegetation-Fuel Classes

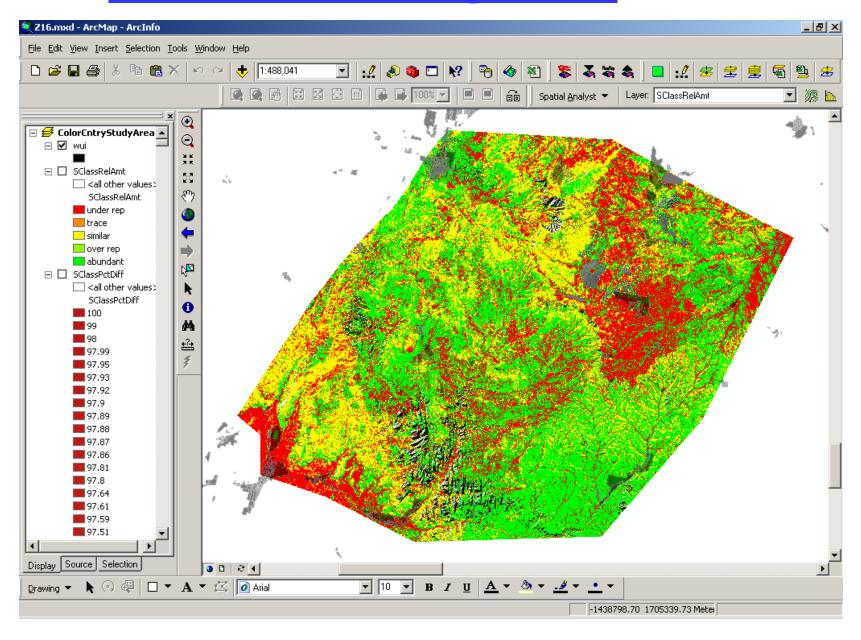
Code	Upper Lifeform	Layer M Size			Dominant	Species		Fuel Model	Ref Comp	Cur Comp	Sim	Diff	Relative Amount	Stand FRCC	Stand Depart	Acres Departed from Reference
AESP	HERB	ииии	20	лоs	KOMA	POSE	ANR06	1	10	0	0	-100	TRACE	1	0	-1200
вмас	CONT	POLE	25.	лоs	KOMA	JUSC2	PIFL2	6	25	40	25	37	OVER REP	2	37	1800
смѕо	CONT	MEDM	25.	лоs	KOMA	PIFL2	JUSC2	2	65	45	45	-30	SIMILAR	1	0	-2400
DLSO									0	0	0	N/A				0
ELSC									0	0	0	N/A				0
UFUS									0	15	0	100	ABUNDAN	Г 3	100	1800
								Total	100	100	70					

Current Veg-Fuel Departure: 30 Current Frequency Departure: 50 Current Frequency-Severity Departure: 55

Veg-Fuel Condition Class: 1 (0-33%) Current Severity Departure: 60 Frequency-Severity Condition Class: 2 (34-66%)

Strata Fire Regime: III - Infrequent Mixed and Surface Strata Departure: 55 Strata Fire Regime Condition Class: 2 (34-66%)

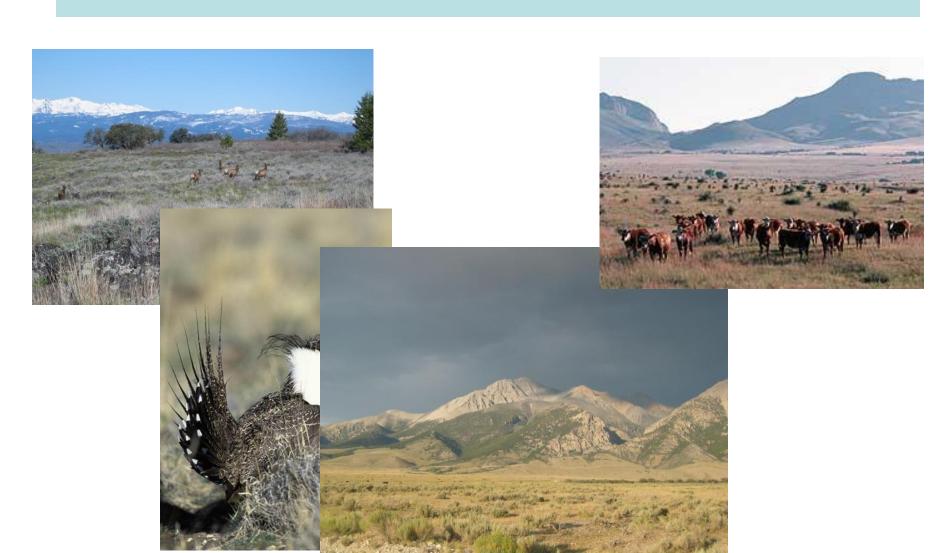
FRCC Mapping Tool



FRCC as decision support and tie with land health



Indicators and benefits of healthy lands



FRCC an indicator of Land Health for Fire and Fuels Management



Use of FRCC as decision support

- Informing treatment design
- Developing objectives: what are desired landscape patterns?
- Interaction with resources

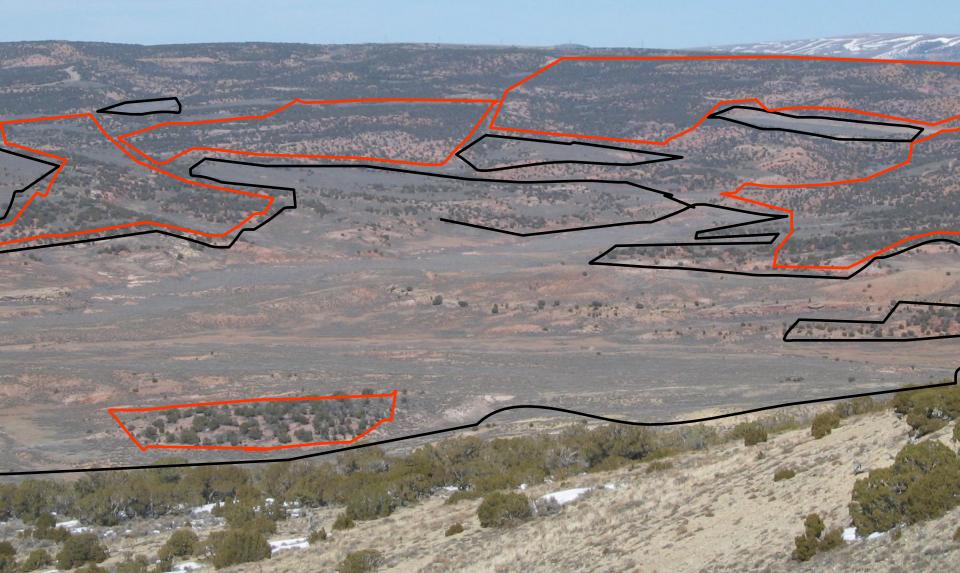


Tie with Land Health Standards and renewable resources

- FRCC consistent with upland vegetation standard
- Colorado: "Healthy plant communities...are diverse...and sustain ecological processes" as indicated by "...plant communities in a variety of successional stages and patterns"
- Wyoming: "Upland vegetation consists of plant communities appropriate to the site" indicated by "...species, structures, successional stages."

Firehole Basin Analysis Area, Sage grouse mgmt emphasis:

- 1. Intermountain Basins Montane sagebrush
- 2. Colorado Plateau P-J Woodland



Firehole Basin Analysis Area, Sage grouse mgmt emphasis:

- 1. Intermountain Basins Montane sagebrush
- 2. Colorado Plateau P-J Woodland

FRCC a tool to develop objectives

In PJ: reduce PJ woodlands, recruit sagebrush

In sagebrush: reduce cheatgrass polygons, recruit herbaceous stages)

Current Condition							
BpS	CC1	CC2	CC3				
Montane Sage	48,000	132,000	245,000				
Pinyon- Juniper	320,500	104,000	29,400				

	Future Condition									
	BpS	CC1	CC2	CC3						
	Montane Sage	279,000	102,000	44,000						
は、この形	Pinyon- Juniper	387,000	49,400	17,500						

Summarizing current and future FRCC conditions in planning documents

Badlands Resource Management Plan									
Biophysical	Historic	Condition	Condition	Condition	Total				
Setting*	Fire	Class 1	Class 2	Class 3	Acres				
	Regime (I-V)	(acres)	(acres)	(acres)					
Wyoming big sagebrush	ΙV	96,000	106,000	252,000	454,000				
Salt-Desert Shrub	V	36,000	13,000	168,000	217,000				
Pinyon-Juniper	IA	230,000	72,000	19,200	321,200				
Mountain Shrub	II	53,000	101,000	35,000	189,000				
Ponderosa Pine	I	124,000	83,000	289,000	496,000				
White fir, mixed conifer	III	22,000	17,000	149,000	188,000				
Total Acres by Condition Class		561,000	392,000	912,200	1,865,200				

LANDFIRE

- Landscape Fire and Resource
 Management Planning Tools Project
- Interagency, seamless data describing fuels, vegetation, and fire regimes
- Primarily GIS layers





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About LANDFIRE)

Data Products)

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Training & Technology Transfer)



LANDFIRE, also known as the Landscape Fire and Resource Management Planning Tools Project, is a five-year, multi-partner project producing consistent and comprehensive maps and data describing vegetation, wildland fuel, and fire regimes across the United States. It is a shared project between the wildland fire management programs of the U.S. Department of Agriculture Forest Service and U.S. Department of the Interior. The project has four components: the LANDFIRE Prototype, LANDFIRE Rapid Assessment, LANDFIRE National, and Training/Technology Transfer.

LANDFIRE data products include layers of vegetation composition and structure, surface and canopy fuel characteristics, and historical fire regimes. LANDFIRE National methodologies are science-based and include extensive field-referenced data. LANDFIRE data products are designed to facilitate national- and regional-level strategic planning and reporting of wildland fire management activities. Data products are created at a 30-meter grid spatial resolution raster data set.

LANDFIRE National data products are produced at scales that may be useful for prioritizing and planning hazardous fuel reduction and ecosystem restoration projects; however, the applicability of data products varies by location and specific use, and products may need to be adjusted by local users. LANDFIRE meets agency and partner needs for data to support large landscape fire management planning and prioritization.

Principal purposes of LANDFIRE data products:

 Provide national-level, landscape-scale geospatial products to support fire and fuels management





 Continental US Mapping Mileston

◆ Learn about <u>LANDFIRE's</u> Product Update

Strategy

→Click here for Rapid Refresh

data products ⇒Click <u>here</u> for Rapid Refresh Fir

IMPORTAN

Perimeter Data

user information on Data Products

Version Alerts (12/24 Notifications (02/27

How Can I Use

Helpful Tool

LANDFIRE Data



Products: the Deliverables

FARSITE Fuel Layers

- -13 Anderson (1982) Fire Behavior Fuel Models
- -40 Scott and Burgan (2005) Fire Behavior Fuel Models
- -Forest Canopy Bulk Density
- -Forest Canopy Base Height
- -Forest Vegetation Height
- -Forest Canopy Cover
- -Elevation
- -Aspect
- -Slope

Fire Regime Layers

- -FRCC
- -FRCC Departure
- -Fire Regime Groups
- -Simulated Historical Fire Return Interval
- -Percent Low-severity Fire
- -Percent Mixed-severity Fire
- -Percent Replacementseverity Fire
- -Succession Classes

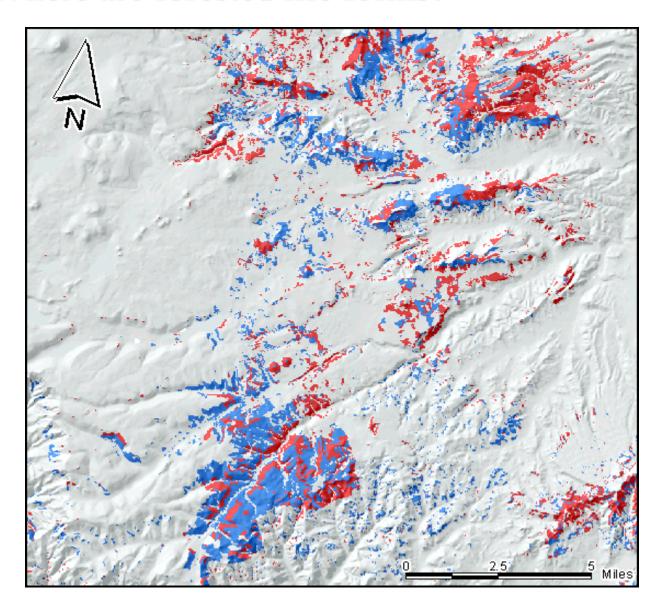
Vegetation Layers

- -Environmental Site Potential
- -Biophysical Settings
- -Existing Vegetation
- -Existing Vegetation Height
- -Existing Vegetation Cover
- -Vegetation Models

Fire Effects Layers

-Fuel Characteristics Classification System (FCCS)

Using existing vegetation data as a safety net: Where are forested life forms?



Dominant / Codominant
Doug-fir/White fir
Ponderosa pine



<u>tional</u> DFIRE

- Forest Canopy Base Height
- Forest Canopy Height
- Forest Canopy Cover
- Elevation
- Aspect
- Slope

Fire Regime data products:

- FRCC
- FRCC Departure Index
- Fire Regime Groups
- Mean Fire Return Interval
- Percent Low-severity Fire
- Percent Mixed-severity Fire
- Percent Replacement-severity Fire
- Succession Classes

Vegetation data products:

- Environmental Site Potential
- Biophysical Settings
- Existing Vegetation Type
- Existing Vegetation Height
- Existing Vogetation Cover
- Vegetation Dynamics Models

Fire Effects data products:

- Fuel Loading Models*
- Fuel Characteristics Classification System

<u>fuel a</u>

How do: dat



 $[^]st$ Production of these data products awaiting review.

About LANDFIRE

Data Products)

Schedule 1

- National Schedule D
 - Schedule Map
- Close
- Schedule Table Mapping Status
- Updated Products Schedule
- Key LANDFIRE Dates

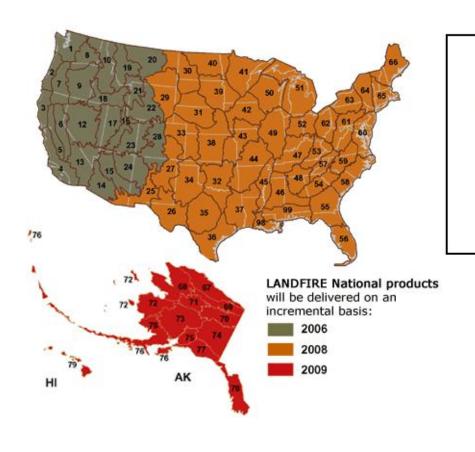
How to Participate

Documents >

Training & Technology Transfer >



Schedule >> LANDFIRE Mapping Zones by Year of Completion



Select a mapping zone

to view dates of scheduled LANDFIRE activities

View a Schedule Table of zones to be mapped by 2008.

LANDFIRE: issues and fixes

- Fuels data being improved through expert review and remapping
- Rangeland Vegetation being improved through "LF Refresh"
- New data sets available end of 2010

FRCC and LANDFIRE Questions?